The observations are not corrected for Parallax, Mean R.A. and N.P.D. of the stars of comparison.

Star.	R.A. 1880·0	N.P.D. 1880·0	No. of Obsns.	Whence derived.
	h m s	° ′ ″		
a (8 mag.)	0 2 52·80	123 42 17·01	2	Cape Obs. 1880
b (8 mag.)	0 17 34·16	123 31 59·26	3	,, ,,
Lacaille 94	0 21 58·49	123 40 11·20		Cape 1878, & Melb.
c (8 mag.)	0 34 32·91	123 13 7·58	2	Cape Obs. 1880
d (8 mag.)	0 41 50·65	123 6 48·87	2	,, ,,
Lacaille 290	0 57 41·58	122 43 25·35		,, 1878
σ Sculptoris	0 56 42·44	122 11 53·71		Cape 1878, & Melb.
e (9 mag.)	1 7 49·07	122 12 37·30	2	Cape Obs. 1880
f (8·7 mag.)	1 11 10·04	122 2 32·98	2	,, ,,
Lacaille 384	1 17 55·88	121 34 17·09		,, 1878

Mean R.A. and N.P.D. of * observed with Comet at Melbourne on Feb. 14. (7·8 mag.) and $1^h\ 0^m\ 20^s{\cdot}02$. $\Delta = 122°\ 29'\ 46''{\cdot}79$.

On a Method of determining the Pressure on the Solar Surface.

By Prof. E. Wiedemann.

In a paper published in *Wied. Ann.* v., p. 503 (1878), I have shown how experiments on interference bands produced by two rays of light of large difference in phase may give an approximate measure of the mean free path of a molecule in a gas, or rather of the time elapsing between two encounters. I should like to draw the attention of astronomers to the fact that we may in this way obtain information as to the pressure in a luminous gas, whether in our laboratory on the solar surface or in the tail of a comet; for the time elapsing between two encounters of a molecule is almost independent of the temperature, and chiefly depends on the pressure.

In order to make the determination, we must decompose the light sent out by the gaseous body—say a protuberance—by means of the spectroscope, and separate a ray of light, which must be as homogeneous as possible. If we produce Newton's rings between two adjustable pieces of glass and count the number of interference bands which are visible we shall obtain the required information. In the above-mentioned paper I have discussed the number of interference bands seen by J. J. Müller in a sodium flame, and shown that the result agrees well with the

length of the mean free path as calculated according to the kinetic theory of gases. Various methods of producing the interference bands besides the one mentioned may of course be employed.

Note on a Disappearance of Jupiter's Satellites in 1611.
By the Rev. S. J. Johnson.

After calling attention to the fact that on the morning of October 15, 1883, there will be another instance of Jupiter appearing without any satellites exterior to his disc, though for a much shorter period than on the last occasion, August 21, 1867, Mr. Johnson proceeds—'A like instance seems to have occurred to Galileo, unless it arose from want of optical power. On March 15, 1611, after giving the configurations of the satellites at 1h. 30m., he proceeds as follows—"Vix conspici poterant planetæ occidentales. Horâ tandem 3 nullus apparebat, sed omnes, ob maximam vicinitatem cum Jove, latitabant. Postea, ad horam usque 7, multoties Jovem intuitus sum, nullusque planetarum apparuit; ulterius eum jam ad orizontem tendentem non observavi."' (G. Galilæi, *In Jovis satellites lucubrationes.*)

Abbenhall Rectory,
Mitcheldean, Gloucester, Mar. 3.

Admiral Sir E. Ommanney, writing from Yarmouth, Isle of Wight, August 16, last, records that the luminous bodies called *Perseids* were observed in that locality about the time predicted, August 10, 12, and 13. They were most numerous, August 10, between the hours of 9 P.M. and 11 P.M.; the radiant point was scarcely definable. In general the trajectory of the luminous bodies was short, their visibility only for a brief moment, and the track very attenuated; but a few were large and vivid, one meteor was especially conspicuous which made a traverse from the N.E. to the tail of the Great Bear, expanding into a globular form previous to disappearance. Several meteors were seen at intervals on the night of the 11th, and on the 13th.

Errata.

Page 497, eleventh line from the commencement, *for* 'Double stars and stars with distinct companions' *read* 'Double stars and stars with distant companions."

Page 514, in the measure of Smyth's companion to Sirius, *for* 10″·44 *read* 1044″.

Page 563, tenth line from bottom, last word, *for* 'the' *read* 'ten.'